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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,285	09/08/2003	Stanford R. Ovshinsky	OCC-6	1384
24963	7590	02/22/2005	EXAMINER	
ENERGY CONVERSION DEVICES, INC. 2956 WATERVIEW DRIVE ROCHESTER HILLS, MI 48309			HU, SHOUXIANG	
			ART UNIT	PAPER NUMBER
			2811	

DATE MAILED: 02/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

An

Office Action Summary	Application No. 10/657,285	Applicant(s) OVSHINSKY, STANFORD R.	
	Examiner Shouxiang Hu	Art Unit 2811	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
 4a) Of the above claim(s) 4-7 and 12-27 is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-3 and 8-11 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/8/03 & 11/16/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Claims 4-6, 12-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 11/15/2004 and 07/30/2004.

In addition, claim 7 is also withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being unreadable on the elected species of Figs. 3 and 4, wherein only a single chalcogenide material (210) is shown.

Accordingly, claims 1-27 are pending in this application; and claims 1-3 and 8-11 remain active in this office action.

Drawings

2. Figures 1 and 2 are objected to as they appear to belong to prior art according to the specification and thus should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified

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and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3 and 8-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Lowrey (US 2002/0036931).

First, it is noted that the instant application claims priority (as CIP) of two previous application of SN 10/384,994 and SN 10/426,321. However, none of these two previous applications discloses the subject matters as claimed in the instant invention of a memory device that utilizes two separately programmable regions of the memory layer. Accordingly, the instant application does not enjoy the priority dates of the two previous applications on the above claimed subject matters. It then makes Lowrey a valid 102(b)-type prior art reference, instead of a 103-type, with respect to the claimed subject matter in the instant invention.

Lowrey discloses a chalcogenide programmable memory device (Figs. 1A & B, and 2J"; also see Paragraphs 0004, 0100 and 0101), comprising: a chalcogenide material (290; comprising Te, Se and Ge; and naturally having a plurality of structural states, including accumulation states and greyscale states);

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a first terminal (130a); a second terminal (130b) and a third terminal (300), wherein the chalcogenide material includes a first portion (between the first and third terminals) in a first structural state and a second portion (between the second and third terminals) in a second structural state; and the first and second structural states can be naturally selected from among the accumulation states and/or the greyscale states since both of the first and second portions are formed of a programmable-memory-type chalcogenide material, which each can be naturally in any of the states.

Regarding claim 8, each of the two portions in Lowrey can be separately programmed into any of the different states. And, different states of the memory material naturally result in different resistances.

Regarding claim 11, it is noted that a programmable memory chalcogenide material can be naturally programmed as non-binary bits since it naturally has more-than-two multiple stable resistance states, and each of these states can be regarded as a memory state.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shouxiang Hu whose telephone number is 571-272-1654. The examiner can normally be reached on Monday through Thursday, 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie C. Lee can be reached on 571-272-1732. The fax

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phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SH

February 10, 2005



SHOUXIANG HU
PRIMARY EXAMINER